

A. Identification and Coding Information			2. Date: October 1, 2013	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
113803	W-161.01	Change			
3. Project Name: Large Diameter Water Pipe Rehabilitation Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '13	(10) Estimate FY '14	(11) Total 6 Years	(12) Year 1 FY '15	(13) Year 2 FY '16	(14) Year 3 FY '17	(15) Year 4 FY '18	(16) Year 5 FY '19	(17) Year 6 FY '20	(18) Beyond 6 Years
Planning, Design & Supervision	25,859	3,103	2,680	20,076	2,503	3,310	3,409	3,512	3,617	3,725	
Land											
Site Improvements & Utilities											
Construction	305,012	35,685	27,715	241,612	33,949	35,498	41,152	42,387	43,658	44,968	
Other	14,605		1,520	13,085	1,823	1,940	2,228	2,295	2,364	2,435	
Total	345,476	38,788	31,915	274,773	38,275	40,748	46,789	48,194	49,639	51,128	

C. Funding Schedule (000's)											
WSSC Bonds	345,476	38,788	31,915	274,773	38,275	40,748	46,789	48,194	49,639	51,128	

D. Description & Justification

DESCRIPTION

The purpose of this program is to plan, design and rehabilitate or replace Large Diameter Water Transmission Mains that have reached the end of their useful life. Condition Assessment and/or corrosion monitoring is performed on metallic pipelines, including ductile iron, cast iron, and steel, to identify lengths of pipe requiring replacement or rehabilitation and cathodic protection. The PCCP Inspection and Condition Assessment Program identifies individual pipe segments that require repair or replacement to assure the continued safe and reliable operation of the pipeline. The Program also identifies extended lengths of pipe that require the replacement of an increased number of pipe segments in varying stages of deterioration that are most cost effectively accomplished by the replacement or rehabilitation of long segments of the pipeline or the entire pipeline. Rehabilitation or replacement of these mains provides value to the customer by minimizing the risk of catastrophic failure and ensuring a safe and reliable water supply. The Program includes installation of Acoustic Fiber Optic Monitoring equipment in order to accomplish these goals in PCCP mains.

* EXPENDITURES FOR LARGE DIAMETER WATER PIPE REHABILITATION ARE EXPECTED TO CONTINUE INDEFINITELY.

JUSTIFICATION

Plans & Studies

Utility Wide Master Plan, (December 2007); 30 Year Infrastructure Plan (2007); FY2012 Water Transmission System Asset Management Plan, GHD, Inc. (March 2011).

Specific Data

WSSC has approximately 960 miles of large diameter water main ranging from 16-inch to 96-inch in diameter. This includes 350 miles of cast iron, 225 miles of ductile iron, 35 miles of steel and 350 miles of PCCP. Internal inspection and condition assessment is performed annually on PCCP pipelines 36-inch and larger in diameter. Of the 350 miles of PCCP, 145 miles are 36-inch diameter and larger, and 59 miles are 54-inch diameter or larger. The inspection program includes internal visual and sounding, sonic/ultrasonic testing, and electromagnetic testing to establish the condition of each pipe section and determine if maintenance repairs, rehabilitation, or replacement are needed.

Cost Change

The cost increase is due to the continued ramp-up in the number of miles of PCCP pipeline inspections from 18 miles to 20 miles and the number of miles of cast iron pipe being replaced and receiving cathodic protection. Also, as we move into the smaller 42-inch and 36-inch diameter PCCP pipelines, where carbon-fiber repairs are not always possible, there is an increase in the number of PCCP pipe segments that require replacement.

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E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff		
	Other		
Facility Costs	Maintenance		
	Debt Service	15803	21
Total Costs.....		15803	21
Impact on Water or Sewer Rate.....		32¢	21

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	60,000
Cost Estimate Last FY	248,178
Present Cost Estimate	345,476
Approved Request, Last FY	37,028
Total Expenditures & Encumbrances	38,788
Approval Request FY 15	38,275
Supplemental Approval Request Current FY (14)	

G. Status Information	
Land Status:	Not applicable
% Project Completion:	On-Going
Est. Completion Date:	On-going

H. Map	Map Reference Code:
<p>MAP NOT AVAILABLE</p>	

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 161.01 Project Name: Large Diameter Water Pipe Rehabilitation Program

STATUS Not Applicable (WSSC Contract Nos. BM5063A09 , BM5063B09).

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change based upon the results of the inspections and condition assessments. Additional costs associated with inspection, monitoring and emergency repairs are included in the Operating Budget.

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Montgomery County Government (including localities where work is to be performed), Prince George's County Government (including localities where work is to be performed), Maryland-National Capital Park & Planning Commission, Prince George's County Department of Public Works & Transportation, Local Community Civic Associations and WSSC Projects A-107.00, Specialty Valve Vault Rehabilitation Program and W-1.00, Water Reconstruction Program.

NOTE This project supports 100% System Improvement.